Grassy Mountain Complex Contractor Fatality
Rome, Oregon
August 10, 2013
Serious Accident Investigation

Final Report:
Factual Report

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BLM

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# Table of Contents

# SERIOUS ACCIDENT INVESTIGATION FACTUAL REPORT

**Accident: Grassy Mountain Complex Contractor Fatality**

**Location: Lat: 42°, 40.626", Lon: 117°, 19.494", T22S, R44E, SESW Sec 16**

**Date: August 10, 2013**

**Serious Accident Investigation Team**

**Team Leader:**
Andrew M. Smith
Deputy State Director, Management Services
Portland, Oregon

Andrew M. Smith 11/27/2013
**Signature** **Date**

**Chief Investigator:**
Michael C. Colombe
Oregon/Washington State Safety Manager
Portland, Oregon

**Fire Operations**
Shane P. McDonald
Fire Management Officer
Carson City District Office
Carson City, Nevada

**Contract Technical Specialist**
Deborah Y. Wesselius
Regional Fire Contracting Officer
UDSA Forest Service, Regional Office
Missoula, Montana

## Executive Summary

On August 10, 2013, at approximately 1210 hours MST, the transport operator for dozer E-19 was found nonresponsive while supporting fireline rehabilitation operations on the Grassy Mountain Complex.

The Grassy Mountain Complex was reported to the Vale Dispatch Center (OR-VAD) on August 7, 2013 at approximately 1405. The fire, located 30 air miles south of Jordan Valley Oregon, was lightning-caused, and was burning in grass and sagebrush.

On August 7, 2013, resources arrived and began initial attack at approximately 1630; the fire was reported to be at 200-plus acres and exhibiting extreme fire behavior. At 1630, a Brian McKinney Company Type 2 Dozer was reassigned from Severity VAD-082 to the Grassy Mountain Complex. The dozer and lowboy (transport) ordered under FS-R6 VIPR contract, arrived on incident at 2254 the evening of August 7, 2013. After the dozer and its transport arrived on scene, the dozer was offloaded and began line cutting. The dozer transport operator (the deceased) stayed with the transport as support. On August 8 at 0900, Incident Command was transferred to a Type 3 organization; initial attack response continued. On August 9, mop-up operations began and on the morning of August 10 the incident was transferred back to a Type 4 organization to complete mop-up and rehabilitation operations.

On the morning of August 10, the Heavy Equipment Boss (HEQB) attempted to contact the transport operator twice via radio to reposition the lowboy to transport the dozer. After failed attempts to contact the transport operator, the HEQB drove to the site where the transport operator had parked the chase rig. The HEQB arrived at 1210 and found the transport operator nonresponsive.

The cause of death was determined "heart attack" by the Medical Examiner based on the transport operators pre-existing medical condition; severe coronary artery disease, which was not compatible with environmental conditions and exposures of the wildland fire environment and assigned job tasks. Severe coronary artery disease is defined as narrowing of the small blood vessels that supply blood and oxygen to the heart that requires percutaneous coronary interventions (PCIs), such as a stent. The Medical Examiner noted and acknowledged that the deceased had a previous heart attack and a stent implanted as a percutaneous coronary intervention. The medical examiner had a physician to patient relationship prior to the fatality.

## Narrative

(Times are approximate and are in military time)

### Wednesday August 7, 2013

1405 the Grassy Mountain Complex was reported to the OR-VAD.

1630 resources arrived at incident, incident reported to be 200 acres, burning in grass and sage brush, running fire behavior with 4 to 8 foot flame lengths, aspect flat, winds SW 10 to 15 gusting to 20 mph, spread potential was high, values at risk were cattle. Additional engines, 2 dozers, 2 water tenders, a Type 3 IC, and 2 Single Engine Air-Tankers (SEATs) were ordered

2254 Brian McKinney Company Type 2 Dozer/Transport (Resource order E-19) arrived on scene, offloaded dozer and began line construction

**Thursday August 8, 2013**

0900 Incident transferred to Type 3 organization (ICT3)

1202 Incident size was reported at 15,800 acres

1238 Scene of Action (SOA) repeater became operational on incident

1618 ICT3 began releasing resources to home units or other incidents

2000 E-19 off-shift

**Friday August 9, 2013**

Resources assigned to the incident began working standard shifts performing mop-up and rehabilitation. ICT3 made some resources available to be reassigned. Incident size remained at 15,800 acres.

1800 Incident declared contained.

**Saturday August 10, 2013**

0916 ICT3 reported to dispatch the projected release of crew, engines, contractors, and overhead to be at approximately 1730 that evening.

Approximately 1030 to 1130 HEQB made several attempts via radio to contact transport operator; who was staged at the point of fatality in a chase vehicle, to re-position the transport; dozer was to be moved to perform rehabilitation on another section of fire. The dozer was out of the transport operator's (deceased) view, constructing fireline on the southwest aspect of the fire

1135 HEQB was unable to communicate with transport operator. He made his way to location of chase vehicle to make physical contact with transport operator.

1210 Transport operator was found nonresponsive by HEQB

1215 HEQB radioed the ICT3 to request assistance

1216 ICT3 contacted OR-VAD via radio

1217 Life Flight Helicopter (LF) called by OR-VAD

1217 ICT3 arrived on scene with FF (Firefighters) 1 and 2 on Engine 1. HEQB, FF1, FF2 removed transport operator from dozer chase vehicle and began CPR efforts

1224 Engine 2 responded to request for assistance, began moving toward scene with crew (FF3, FF4, FF5); crew member FF4 is a former EMT

1225 ICT3 directed FF6; a current and qualified NREMT-B, to the scene to provide additional EMT support

1255 FF3, FF4, FF5 arrived on scene. FF4 assisted on the resuscitation efforts. FF3 assisted IC with notifying Fire Duty Officer and FMO. FF3 assisted dozer operator in contacting company personnel. FF5 began securing scene

1310 FF6 arrived on scene and assisted in resuscitation efforts, including providing oxygen

1318 LF arrived; transfer of care was given to LF medical personnel

1335 LF medical personnel discontinued resuscitation efforts

1340 LF medical personnel determined transport operator deceased

1425 LF transported deceased to Ontario, OR airport

1509 LF landed at Ontario airport, deceased was transferred to Malheur County Sheriff

1720 Sheriff arrived on scene at Grassy Mountain Complex. Sheriff and BLM Law Enforcement Officer collected witness statements

2258 ICT3 reported all resources were off the line and bedded down for the night

## Investigation Process

The fatality incident was reported to the BLM Washington Office on August 10, 2013 and an Interagency BLM/USFS Serious Accident Investigation Team (SAIT) was mobilized. The team consisted of a:

- Team Leader
- Chief Investigator

- Fire Operations
- Contract Technical Specialist

The team convened at the Vale BLM District Office on August 11, 2013. The team conducted an in-brief with the BLM Agency Administrators, the Vale Fire Management Officer and other staff on the afternoon of August 11, 2013, and the Team Leader described the process of collecting evidence and information related to the incident.

The process of information evidence gathering consisted of:

- Interviews and collection of witness statements from involved incident personnel
- Evaluation of human, material, and environmental factors that may have contributed to this incident
- Visit to the area where the incident occurred
- Establishing the chronology of the incident
- Reviewing of fire operational guidelines and policies, and contractual requirements
- Collection of written statements from personnel who were involved in the emergency response, medical care, and local law enforcement response
- Interviews of the Incident Commander, incident personnel, dozer company owner and others who were associated with the incident

## **FINDINGS (human)**

### **Finding 1 (human)**

The transport operator had a pre-existing medical condition; severe coronary artery disease, which was not compatible with environmental conditions and exposures of the wildland fire environment and assigned job tasks. Severe coronary artery disease is defined as narrowing of the small blood vessels that supply blood and oxygen to the heart that requires percutaneous coronary interventions (PCIs), such as a stent. The Medical Examiner noted and acknowledged that the deceased had a stent implanted as a percutaneous coronary intervention. The medical examiner had a physician to patient relationship prior to the fatality.

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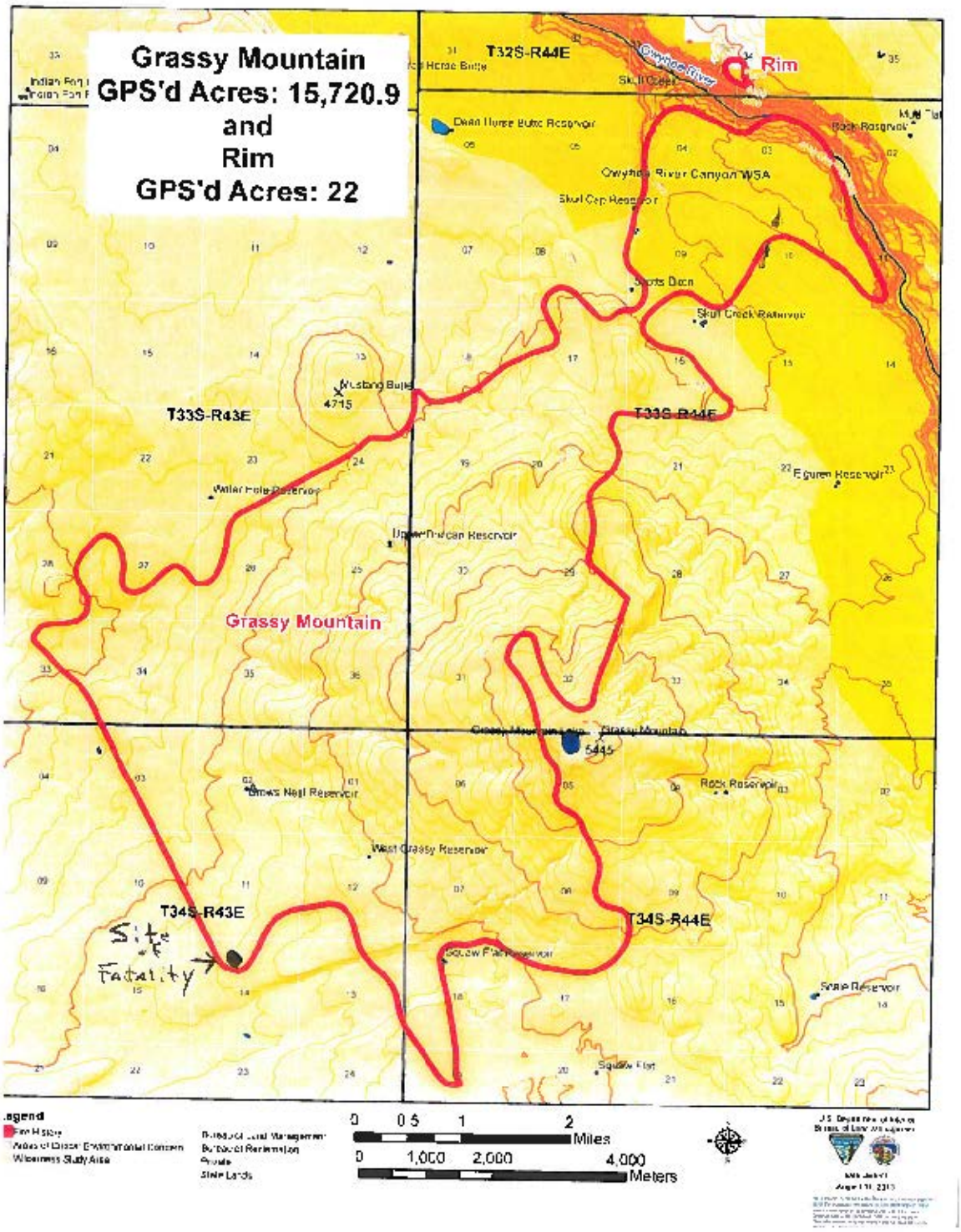
## MAPS, PHOTOGRAPHS




Incident Map

E-19, Brian McKinney Company Type 2 Dozer

E-19, Transport for Brian McKinney Company Type 2 Dozer


DOT Inspection Sticker for Brian McKinney Company Transport

## ADDITIONAL INFORMATION

### 1. Transport Operator

Transport operator was a 59 year old male, estimated to be 6 feet tall, 190 lbs. Medical examiner listed cause of death as a "possible heart attack."

This was the transport operator's initial employment with Brian McKinney Company and first fire assignment; the company indicated that the operator had taken RT-130 2013 Fire Refresher Training. Operator had heavy equipment and lowboy transport experience.

The Malheur County Sheriff's Incident Report states " …BLM employees stated that the deceased had informed them while visiting and getting to know him better in the recent days and evenings that he had said that he had turned his life around a few years back after surviving a minor heart attack and getting a stent installed."

The Motor Carrier Safety Improvement Act of 1999 required the U.S. Secretary of Transportation to make federal commercial motor vehicle medical certification a part of the commercial driver license. To qualify for a Commercial Driver License (CDL)

individuals must undergo a Department of Transportation (DOT) medical examination performed in accordance with CFR 49 §391.41 and CFR 49 §391.43. All DOT medical examinations are conducted by a licensed medical examiner as defined in CFR 49 §390.5.

The deceased maintained a current CDL with an expiration of March 15, 2014. The deceased had been medically qualified for a CDL, and had obtained a CDL after completing the required medical examination(s).

### 2. Interagency Standards for Fire and Fire Aviation Operations

Interagency Standards for Fire and Fire Aviation Operations currently require all BLM Firefighters; to include permanent, seasonal, temporary, and administratively determined personnel, to be trained in First Aid and Cardiopulmonary Resuscitation (CPR) upon initial employment and every three years or per certifying authority. This mandatory standard provided incident personnel with the medical training necessary to aptly respond to the medical emergency on Grassy Mountain Complex.

### 3. Critical Incident Stress Management

A Critical Incident Stress Management (CISM) Team was requested and has provided Critical Incident Stress Debriefing sessions to assist those affected by the incident.

### 4. Interagency Standards for Fire and Fire Aviation Operations

Current 2013 Interagency Standards for Fire and Fire Aviation Operations (Red Book), Appendix K, require AEDs to be available only when incident size exceeds 250 personnel on incident and is recommended during all Work Capacity Tests being administered in the BLM. The 2013 Interagency Standards for Fire and Fire Aviation Operation's recommended to have an AED present during a controlled event and not during an uncontrolled fire event gives appearance of non-standardization of resources.

The probability of an event occurring increases with age, special consideration should be given to the age profile of the workforce, the work being accomplished, and the availability of medical care. Defibrillation is the only technique that is effective in returning a heart in Ventricular Fibrillation (VF) to its normal rhythm. Leadership should examine the composition of the resident workforce. Ventricular Fibrillation is a common arrhythmia leading to cardiac arrest and death. VF is unorganized electrical activity of the heart, resulting in producing no blood flow or pulse and which will lead to death.